Serial Number: 09/188,399

Filing Date: November 6, 1998

AUTOMATED FINITE CAPACITY SCHEDULER

A method of scheduling activities comprising: 14. (Amended)

defining discrete and continuous constraints related to the activities, wherein the continuous constraints are related to other variables by linear mathematical relationships; representing selected scheduling decisions as discrete and continuous constraints; and scheduling activities in accordance with [an ]integrated implications of the discrete and continuous constraints.

- 15. (Amended) The method of claim 14 and further comprising: scheduling activities in accordance with previous scheduling decision constraints; identifying infeasibilities during the scheduling of activities; and[.] scheduling activities in accordance with identified infeasibilities.
- 16. (Amended) The method of claim 15 and further comprising: identifying a culprit activity which resulted in\an infeasibility[.]; and backtracking to the culprit and rescheduling the culprit activity.
- 19. (Amended) A method of modifying scheduled tasks comprising: updating information related to the scheduled tasks;

modifying a list of activities required to accomplish the tasks based on the updated information;

optionally modifying the activities into sets of smaller activities;

modifying discrete constraints related to the activities

modifying continuous constraints related to the activities, wherein the continuous

constraints are related to other variables by linear mathematical relationships; and

scheduling the activities and smaller activities based on discrete and continuous

constraints.

27. (Amended) A machine readable medium [have] having computer executable instructions stored thereon for causing a computer to perform a method of scheduling tasks comprising:

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creating a list of activities required to accomplish the tasks; modifying selected activities into sets of smaller activities; and scheduling the activities and smaller activities based on discrete and continuous constraints, wherein the continuous constraints are related to other variables by linear mathematical relationships.

28. (Amended) A machine readable medium [have] having computer executable instructions stored thereon for causing a computer to perform a method of scheduling activities comprising: defining discrete and continuous constraints related to the activities, wherein the continuous constraints are related to other variables by linear mathematical relationships; representing selected scheduling decisions as discrete and continuous constraints; and scheduling activities in accordance with an integrated implications of the discrete and continuous constraints.

29. (Amended) A machine readable medium [have] having computer executable instructions stored thereon for causing a computer to perform a method of modifying scheduled tasks comprising:

updating information related to the scheduled tasks;

modifying a list of activities required to accomplish the tasks based on the updated information;

optionally modifying the activities into sets of smaller activities;

modifying discrete constraints related to the activities;

modifying continuous constraints related to the activities, wherein the continuous

constraints are related to other variables by linear mathematical relationships; and

scheduling the activities and smaller activities based on discrete and continuous

constraints.

32. (Amended) A system for scheduling tasks comprising: a continuous constraint solver engine;